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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
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10/697,803

10/31/2003

Young-Chol Lee

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23373

7590

11/18/2005

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EXAMINER

SEVER, ANDREW T

ART UNIT

PAPER NUMBER

2851

DATE MAILED: 11/18/2005

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary	Application No.	Applicant(s)	
	10/697,803	LEE ET AL.	
	Examiner	Art Unit	
	Andrew T. Sever	2851	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 24 October 2005.
- 2a) ☒ This action is **FINAL**. 2b) ☐ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-22 is/are pending in the application.
- 4a) Of the above claim(s) 12,13 and 16-22 is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☒ Claim(s) 1-11,14 and 15 is/are rejected.
- 7) ☐ Claim(s) _____ is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☒ The drawing(s) filed on 31 October 2003 is/are: a) ☒ accepted or b) ☐ objected to by the Examiner.
 Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
 Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☒ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☒ All b) ☐ Some * c) ☐ None of:
1. ☒ Certified copies of the priority documents have been received.
2. ☐ Certified copies of the priority documents have been received in Application No. _____.
3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).
- * See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- | | |
|---|---|
| 1) <input type="checkbox"/> Notice of References Cited (PTO-892) | 4) <input type="checkbox"/> Interview Summary (PTO-413) |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948) | Paper No(s)/Mail Date. _____ |
| 3) <input type="checkbox"/> Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08) | 5) <input type="checkbox"/> Notice of Informal Patent Application (PTO-152) |
| Paper No(s)/Mail Date _____ | 6) <input type="checkbox"/> Other: _____ |

DETAILED ACTION

Election/Restrictions

1. Claims 12, 13, and 16-22 are withdrawn from further consideration pursuant to 37 CFR 1.142(b) as being drawn to a nonelected species, there being no allowable generic or linking claim. Election was made **without** traverse in the reply filed on 1/13/2005.

Claim Rejections - 35 USC § 103

2. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

3. This application currently names joint inventors. In considering patentability of the claims under 35 U.S.C. 103(a), the examiner presumes that the subject matter of the various claims was commonly owned at the time any inventions covered therein were made absent any evidence to the contrary. Applicant is advised of the obligation under 37 CFR 1.56 to point out the inventor and invention dates of each claim that was not commonly owned at the time a later invention was made in order for the examiner to consider the applicability of 35 U.S.C. 103(c) and potential 35 U.S.C. 102(e), (f) or (g) prior art under 35 U.S.C. 103(a).

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4. Claims 1-3, 11, 14, and 15 are rejected under 35 U.S.C. 103(a) as being unpatentable over Naum (US 6,272,269) in view of Kaelin et al. (US 6,435,682.)

Naum teaches in figure 9 a projection display comprising:

An illumination module; and

A slide (92) with image data on it,

Wherein the illumination module comprises:

A light source comprising a plurality of light emitting devices (66);

A light guide panel (30) comprising a top surface from which light is emitted (exit portion that lights the slide), the top surface facing the slide (It faces the slide along the optical path, although the path is bent by 48 it those with ordinary skill in the art would recognize that it still obviously faces the slide, one would simply need to unbend 48), and an edge surface on which light is incident, the light guide panel having a rectangular cross section (clearly part 30 has a rectangular cross section in the cross sectional view shown in figure 9); and

An optical transport member (26 and 28) for guiding light emitted from the light source to the edge surface of the light guide panel, the cross sectional area of the optical transport member parallel to the edge surface increasing from the edge surface to the light source.

Naum teaches a slide instead of an optical modulator. Kaelin teaches in column 4 lines 15-26 that optical modulators (spatial light modulator) are interchangeable with slides, being better for active images and/or more complex still images. Accordingly it would

have been obvious to one of ordinary skill in the art to replace the slides of Naum with a spatial light modulator, which allows for more complex still images and/or active images.

With regards to applicant's claim 2:

The optical transport member of Naum (26 and 28) comprises a light-emitting portion facing the edge surface (the portion of 26 immediately before part 30 that connects to the light guide), a light incident portion facing the light source (light sources 66 face the opening of the transport member nearly 26), wherein the optical transport member is transparent. (See column 6 lines 21-23 which teaches the optical transport member is made of fused silica. Fused silica is a transparent material.) Part 28 is the body portion except immediately before part 30.

With regards to applicant's claim 3:

See figure 9, which clearly shows the light reflecting off the surfaces of the body portion.

With regards to applicant's claim 11:

Naum teaches in column 6 lines 31-50 that the index of the optical transport member is about 1.5 and made of fused silica which is a common material that waveguides (fiber optics) being the standard (see US 2003/0107739 to Lehmann et al. paragraph 60.)

With regards to applicant's claims 14 and 15:

Naum teaches light emitting device arrays which are LEDs (light emitting diodes.) (See column 8 lines 14-33.)

5. Claim 4, 5, 9, and 10 are rejected under 35 U.S.C. 103(a) as being unpatentable over Naum in view of Kaelin as applied to claims 1-3, 11, 14, and 15 above, and further in view of Okuyama et al. (US 6,814,442.)

As described in more detail above Naum in view of Kaelin teaches a projection display which among other things includes a body portion. Naum in view of Kaelin, however, does not teach that this body portion comprises a plurality of stair portions. Okuyama in figures 1 and 2-part K teaches such a body portion. Okuyama teaches in column 4 lines 36-55 that the structure of this body portion allows for more effective/efficient use of the light. Accordingly it would have been obvious to one of ordinary skill in the art at the time the invention was made to include stair portion in the body portion of Naum in view of Kaelin as taught by Okuyama.

With regards to applicant's claim 5:

It is clear from inspection of figures 1 and 2 of Okuyama that the second and first surfaces are orthogonal to each other.

With regards to applicant's claims 9 and 10

See the with regards to claim 5 as well as the rejection of Naum in view of Kaelin's with regards to claims 14 and 15

6. Claims 6-8 are rejected under 35 U.S.C. 103(a) as being unpatentable over Naum in view of Kaelin as applied to claims 1-3, 11, 14, and 15 above, and further in view of Hooker et al. (US 6,554,463.)

As described in more detail above Naum in view of Kaelin teaches a projection display that among other things includes optical transport member having at least one light incident portion. Naum in view of Kaelin does not teach multiple light incident portions, however Hooker provides such a teaching in figure 1. Hooker teaches in column 3 lines 47-57 that by using individual light incident portions for each LED, less or no light is lost to the surrounding atmosphere making the optical transport/light source combination more efficient. Accordingly it would have been obvious to one of ordinary skill in the art at the time the invention was made to include the multiple light incident portions of Hooker in the projection display of Naum in view of Kaelin.

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With regards to applicant's claims 7 and 8:

Both Naum in view of Kaelin and Hooker teach the use of multiple LEDs.

Response to Arguments

7. Applicant's arguments filed 10/24/2005 have been fully considered but they are not persuasive.

Applicant argued that part 44 of Naum does not meet the art-recognized definition of a light guide panel, since it is actually a connector. The office has noted this fact and responds that the identification of part 44 as the light guide panel was done in error and in fact part 30 (the rectangular section of light guide 26, 28, and 30 that connects to the connector 44) is equivalent to the claimed light guide panel and specified that way in Naum's specification. Accordingly the rejection has been modified to represent part 30 as the light guide panel rather than part 44. The rejection is made final since the grounds of rejection have not been changed (Claims 1-3, 11, 14, and 15 are still rejected under 35 U.S.C. § 103(a) in view of Naum and Kaelin et al.)

Conclusion

8. **THIS ACTION IS MADE FINAL.** Applicant is reminded of the extension of time policy as set forth in 37 CFR 1.136(a).

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A shortened statutory period for reply to this final action is set to expire THREE MONTHS from the mailing date of this action. In the event a first reply is filed within TWO MONTHS of the mailing date of this final action and the advisory action is not mailed until after the end of the THREE-MONTH shortened statutory period, then the shortened statutory period will expire on the date the advisory action is mailed, and any extension fee pursuant to 37 CFR 1.136(a) will be calculated from the mailing date of the advisory action. In no event, however, will the statutory period for reply expire later than SIX MONTHS from the mailing date of this final action.

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Andrew T. Sever whose telephone number is 571-272-2128. The examiner can normally be reached on 8:30-5:00.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Judy Nguyen can be reached on 571-272-2258. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).



AS

William Perkey
Primary Examiner